

## CLAIMS

What is claimed is:

1 A power supply unit, comprising:

2 a plurality of power supply circuits having  
3 different power conversion efficiency characteristics for  
4 converting an input voltage to a predetermined voltage;

5 an input logic for inputting a control signal for  
6 controlling power consumption states; and

7 a switch for switching to one of said plurality of  
8 power supply circuits based on said control signal.

1 2. The power supply unit according to Claim 1, wherein  
2 said switch comprises activation means associated with  
3 each of said plurality of power supply circuits and  
4 activates the associated power supply circuit based on  
5 the state of said control signal.

1 3. The power supply unit according to Claim 1, wherein:

2 said plurality of power supply circuits comprises a  
3 first power supply circuit for accommodating a lesser  
4 electrical load and a second power supply circuit for  
5 accommodating a greater electrical load; and

6 said switch switches to said first power supply  
7 circuit in response to assertion of said control signal  
8 or said switch switches to said second power supply

9 circuit in response to deassertion of said control  
10 signal.

1 4. The power supply unit according to Claim 1, further  
2 comprising a holding circuit for holding a power output  
3 from one of said plurality of power supply circuits for a  
4 predetermined period of time during switching by said  
5 switch.

1 5. The power supply unit according to Claim 4, wherein  
2 said control signal is delivered through said holding  
3 circuit prior to being received by a power supply  
4 circuit.

6. A power supply unit, comprising:

a plurality of power supply circuits having different power conversion efficiency characteristics for converting an input voltage to a predetermined voltage;

a detector for sensing the amount of power consumption; and

a switch for causing switching to one of said plurality of power supply circuits based on said amount of power consumption.

7. The power supply unit according to Claim 6, wherein said detector senses said amount of power consumption based on the amount of electric power input to said plurality of power supply circuits.

8. The power supply unit according to Claim 6, wherein said switch comprises activation means which is associated with each of said plurality of power supply circuits and activates the associated power supply circuit based on said amount of power consumption.

9. The power supply unit according to Claim 6, wherein:

said plurality of power supply circuits comprises a power supply circuit for light load; and

a power supply circuit for heavy load and said switch causes switching to said power supply circuit for light load if said amount of power consumption is smaller

7 than a predetermined value or causes switching to said  
8 power supply circuit for heavy load if said amount of  
9 power consumption is greater than said predetermined  
10 value.

1 10. The power supply unit according to Claim 6, further  
2 comprising holding means for holding a power output for a  
3 predetermined period of time during switching by said  
4 switch.

FIG. 1

FIG. 1